

REMARKS

Claims 1-18 are all the claims pending in the application. By this Amendment, Applicants amend claims 1 and 14 and cancels claims 10-13.

Claim Rejections - 35 U.S.C. § 101

Claims 1-13 are rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter. Applicants respectfully traverse the rejection.

Claims 1-9

In the Office Action, the Examiner asserts that claim 1 is directed to a method for constructing a non-functional data structure without physical transformation for achieving a practical application or a useful, concrete, and tangible result.

MPEP 2106(IV)(C)(2) outlines the various evaluations that must be made to determine whether a claimed invention covers either a 35 U.S.C. § 101 judicial exception (abstract ideas, natural phenomena, and laws of nature) or a practical application of a 35 U.S.C. § 101 judicial exception.

For purposes of an eligibility analysis, a physical transformation "is not an invariable requirement, but merely one example of how a mathematical algorithm [or law of nature] may bring about a useful application." AT&T, 172 F.3d at 1358-59, 50 USPQ2d at 1452. If USPTO personnel determine that the claim does not entail the transformation of an article, then USPTO personnel shall review the claim to determine it produces a useful, tangible, and concrete result. In making this determination, the focus is not on whether the steps taken to achieve a particular result are useful, tangible, and concrete, but rather on whether the final result achieved by the

claimed invention is "useful, tangible, and concrete." *See* MPEP § 2106(IV)(C)(2) (emphasis added).

Claim 1 recites, *inter alia*, "wherein the constructed home-state set, home-state objects, and home-state properties comprise the constructed home-state information." Applicants respectfully submit that "the home-state information" would be the final result achieved by the claimed invention.

The first evaluation includes determining whether the practical application produces a useful result. *See* MPEP §§ 2106(IV)(C)(2)(a), 2107. Specifically, MPEP § 2107(II)(A)(3) issues instructions to Examiners: "If at any time during the examination, it becomes readily apparent that the claimed invention has a well-established utility, do not impose a rejection based on lack of utility. An invention has a well-established utility if (i) a person of ordinary skill in the art would immediately appreciate why the invention is useful based on the characteristics of the invention (e.g. properties or applications of a product or process), and (ii) the utility is specific, substantial, and credible."

Applicants respectfully submit that a direct statement of the practical value of the "home-state information" is at least disclosed at paragraph 89 of Applicants' disclosure in that "systems, applications and home users capable of utilizing home-state information can intuitively and completely perceive the state of a home using the home-state information. This is due to the fact that, if the home-state information is not defined or not consistent for a utilization plan, an effort to separately collect and analyze state information is required." In other words, an advantage of producing the "home-state information" is that such "home-state information" obviates the need for separate collection and analysis of home-device state information, as discussed in the Description of the Related Art at paragraphs 3 to 8 of Applicants' disclosure.

Accordingly, Applicants respectfully submit that claim 1 produces a useful result.

The second evaluation includes determining whether the practical application produces a tangible result, wherein “the tangible requirement does not necessarily mean that a claim must either be tied to a particular machine or apparatus or must operate to change articles or materials to a different state or thing. However, the tangible requirement does require that the claim must recite more than a 35 U.S.C. § 101 judicial exception, in that the process claim must set forth a practical application of that judicial exception to produce a real-world result.” See MPEP § 2106(IV)(C)(2)(b) (emphasis added). If the result has real world practical application or use, then the claim is statutory. The claim does not need to include the uses to which the result is ultimately put, just the result itself.

An example of such a real world practical application or use is at least described with reference to FIG. 9 of Applicants’ disclosure and the accompanying discussion at paragraphs 72 to 78. Specifically, paragraph 74 describes that the home-state information may be used to form the average amount of electricity used by the home devices.

Applicants respectfully submit that the use of the home-state information to detect an average amount of electricity used by home devices is a practical, real-world result, and hence claim 1 produces a tangible result.

The third evaluation includes determining whether the practical application produces a concrete result, wherein “the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. In re Swartz, 232 F.3d 862, 864, 56 USPQ2d 1703, 1704 (Fed. Cir. 2000) (where asserted result produced by the claimed invention is “irreproducible” claim should be rejected under section 101). The opposite of “concrete” is

unrepeatable or unpredictable. Resolving this question is dependent on the level of skill in the art.” See MPEP § 2106(IV)(C)(2)(2)(c) (emphasis added).

Applicants respectfully submit that the claimed method of constructing home-state information in a home network is clearly repeatable for various devices in a home, such that the method of claim 1 produces a concrete result. Specifically, FIGS. 3A, 3B, and 4, and the accompanying discussion at paragraphs 44 to 53 of Applicants’ disclosure describe that the home-state information is constructed based on the home devices connected to the network, user in the home, and home services connected to the home.

Therefore, Applicants respectfully submit that a person having ordinary skill in the art would understand that collecting home-state information using a given set of devices, services, and users would have a result that is substantially repeatable. That is to say, the method would produce the same result given the same set of devices, services, and users. Further, a person having ordinary skill in the art would understand that implementing the method using a different set of devices, users, and services would substantially produce the same result again. That is to say, regardless of the devices, users, and services, home-state information is collected.

Accordingly, claim 1 has a result that is both substantially repeatable and substantially produces the same result, and hence claim 1 produces a concrete result.

Therefore, claim 1 produces a result that is useful, tangible, and concrete, and hence claim 1 and its dependent claims recite statutory eligible subject matter under 35 U.S.C. § 101.

Claims 10-13

The rejection of claims 10-13 is moot, as those claims have been cancelled.

Claim Rejections - 35 U.S.C. § 102

Claims 1, 10, 16, and 18 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by Gonzales et al. (U.S. Pub. 2003/0074088, hereinafter “Gonzales”). Applicants respectfully traverse the rejection.

Claims 1, 16, and 18

In the Office Action, the Examiner asserts that paragraphs 4 and 10 of Gonzales allegedly teach “constructing a home-state set using a plurality of home-state information sources which expresses the home-state information sources and all the combinations of the home-state information sources,” as recited in claim 1. *See* Office Action, p. 4. Specifically, the Examiner asserts that the lights, furnace, etc. of Gonzales correspond to the “home-state information sources.” *See* Office Action, p. 14.

Gonzales describes that a scene includes one or more devices set to a particular state. *See* Gonzales, ¶ 4, ll. 1-2. The setting of devices constitutes one scene, and a different scene may set additional devices to different states. *See* Gonzales, ¶ 4, ll. 6-11. In order to create a scene, a user employs a simplified programming interface (SPI). *See* Gonzales, ¶ 34. Using the SPI, scenes are created by having each device locally save a membership status for each scene. *See* Gonzales, ¶¶ 56-57.

However, Gonzales neither teaches nor suggests “a home-state set...which expresses...all the combinations of the home-state information sources” since Gonzales does not disclose constructing all possible scenes using all combinations of devices. Rather, Gonzales describes that a user creates unique scenes in which selected devices are adjusted to a desired state. *See* Gonzales, ¶ 10, ll. 6-15. Indeed, Gonzales describes a morning scene comprising the devices of a furnace, bathroom lights, kitchen lights, a coffee machine, a television, and a porch light. *See*

Gonzales, ¶ 4. However, for example, there is no teaching or suggestion of a scene comprising only the bathroom lights and kitchen lights, or a scene comprising only the television and coffee machine.

Therefore, Gonzales does not teach or suggest “a home-state...which expresses...all the combinations of the home-state information sources,” and hence Gonzales fails to teach or suggest all the features of claim 1. Accordingly, claim 1 and its dependent claims would not have been anticipated by Gonzales.

Claim 16 recites “wherein the home-state storing module stores a set of information sources and the combinations of the information sources,” which is similar to the features discussed above, and hence claim 16 would not have been anticipated by Gonzales for at least analogous reasons.

With respect to claim 18, the Examiner asserts that paragraph 4 of Gonzales teaches all the features of claim 18. Gonzales describes devices, such as a furnace, a bathroom light, a kitchen light, a coffee machine, a television, and a porch light, each having an operating state. *See* Gonzales, ¶ 4. However, Gonzales neither teaches nor suggests “wherein the home-state information sources include home devices, a home agent, home users, home services, and home applications,” as recited in claim 18, since Gonzales does not disclose scenes based on states of home users. Indeed, Gonzales is merely directed to the programming of devices, but there is no teaching or suggestion that the state of a home user is included as an information source for a scene.

Therefore, for at least these additional reasons, Gonzales fails to teach or suggest all the features of claim 18, and hence claim 18 would not have been anticipated by Gonzales.

Claim 10

The rejection of claim 10 is moot, as claim 10 has been cancelled.

Claim Rejections - 35 U.S.C. § 103

Claims 2-9, 11, 13, and 17 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gonzales in view of Maxson et al. (U.S. Pub. 2002/0171762, hereinafter "Maxson"). Applicants respectfully traverse the rejection.

Claims 2-9, and 17 depend on claims 1 and 16, respectively, and incorporate all the features of claims 1 and 16. Maxson is merely cited for teaching the display of devices through a graphical user interface. Even if Gonzales could have somehow been modified based on Maxson, as the Examiner asserts in the Office Action, the combination would still not contain all the features of claims 1 and 16, and hence claims 2-9 and 17, as discussed above. Accordingly, claims 2-9 and 17 would not have been rendered unpatentable by the combination of Gonzales and Maxson.

The rejection of claims 11 and 13 is moot, as those claims have been cancelled.

Claims 12, 14, and 15 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Gonzales in view of Maxson, as applied to claims 10 and 11.

In the Office Action, the Examiner takes official notice that announcing an event outside of a home is common knowledge or well-known in the art. Applicants respectfully request the Examiner for evidence as to why such a feature is well-known. Applicants respectfully resubmit that the field of burglar alarm is an unrelated art to the field of home agents and home-state utilization. Burglar alarm systems merely transmit a signal when a breach is detected in a security system. Conversely, home agents and home-state analysis requires the detection of various different home-state information sources having various different properties.

Accordingly, a person having skill in the art would have no reason to modify Gonzales as the Examiner asserts in the Office Action.

Claim 12

The rejection of claim 12 is moot, as claim 12 has been cancelled.

Claims 14 and 15

Claim 14 recites features similar to those discussed above regarding claims 1 and 16. Even if Gonzalez could have somehow been modified based on Maxson, as the Examiner asserts in the Office Action, the combination would still not contain all the features in claim 14, as discussed above. Accordingly, claim 14 and its dependent claims would not have been rendered unpatentable by the combination of Gonzales and Maxson for at least reasons analogous to those discussed above regarding claims 1 and 16.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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